

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A data receiver for receiving user data and reference data coming from a transmitter via at least a channel, the data receiver, comprising:

means for unscrambling data[[.]];

means for despreading unscrambled data[[.]];

means for analyzing a characteristic of the channel[[.]];

for each path in a plurality of rake finger fingers of the data receiver, each rake finger comprising:[[.]]

means for respectively evaluating the contribution of interferences of data caused by the channel[[.]]; and

subtractor subtractor means for cancelling the contribution of interference in the user data for the rake finger, using the respectively evaluated interferences in each path of the rake finger, said subtractor subtractor means being placed before said unscrambling means.

2. (Currently Amended) A The data receiver as-claimed-in of claim 1, characterized in that wherein the data are in compliance with the UMTS standard.

3. (Currently Amended) A The data receiver as-claimed-in of claim 2, characterized in that wherein the reference data are provided by the CPICH channel.

4. (Currently Amended) A method for receiving user data and reference data coming from a transmitter via at least a channel which causes interference in the user data, the method comprising the following steps of:

analyzing the characteristic of the channel by using the reference data[[,]]; for each path in a rake finger, respectively determining an evaluation of the interferences of data provided in each path by the channel in each of a plurality of rake fingers[[,]]; subtracting subtracting the evaluation of interference from the received user data in each of the plurality of rake fingers finger[[,]]; and unscrambling the user data received via each of the plurality of rake fingers finger.

5. (Currently Amended) The method of claim 4, further comprising the steps of including

adding a determined evaluation of each path in each of the plurality of rake fingers finger together to determine interference in the rake finger, wherein subtracting subtracting the evaluation of interference includes subtracting subtracting the determined interference in each of the plurality of rake fingers finger from user data processed via each of the plurality of rake fingers finger; and

providing an output representing interference-corrected user data for unscrambling, and wherein unscrambling includes unscrambling the interference-corrected user data output to provide a rake finger output from the unscrambling step.

6. (Currently Amended) The method of claim 4, wherein subtracting subtracting includes subtracting subtracting an interference evaluation within each of the plurality of a rake fingers finger.

7. (Currently Amended) The method of claim 4, wherein respectively determining an evaluation of the interferences includes comprises separately

determining an interference evaluation for each of a plurality of paths within each of the plurality of rake fingers, further comprising the steps of: including
adding the separately-determined interference evaluations, and
wherein subtracting subtracting includes substracting subtracting the added interference evaluations from the received user data.

8. (Currently Amended) The data receiver of claim 1, wherein the means for respectively evaluating the contribution of interferences includesfurther comprising:

an interference estimator for each path in the rake finger, each interference estimator including a plurality of correlators and a correlator adder to add the output of each correlator, and

an interference adder to add the output of the interference estimator for each path; and

the substracter substracter means is located in the rake finger, coupled to receive an output from the interference adder, adapted to subtract subtract the output of the interference adder from the user data to provide a substracted subtracted user data output, and coupled to provide the substracted subtracted user data output to the means for unscrambling data.

9. (Cancelled)

10. (Currently Amended) The data receiver of claim 1, wherein the means for respectively evaluating includes comprises a plurality of interference estimators respectively allocated to a path in the plurality of rake fingers, and an adder to add an output of the interference estimators[[,]]; and

the substracter substracter means is located after the adder and adapted to receive and use an output from the adder to subtract subtract interference from user data processed via the rake finger.

11. (Currently Amended) A rake receiver for processing a received data signal, the rake receiver, comprising:

~~a plurality of rake fingers, at least one of the rake fingers including for each of the a plurality of paths in the rake fingers comprising:~~

~~finger, an interference estimator to determine the interference in the path[[.]];~~

~~an adder to add the determined path interferences from the interference estimators[[.]];~~

~~a subtracter subtracter to subtract subtract the added interferences from the received data signal to provide a corrected output corresponding to the received data signal with the interferences subtracted subtracted therefrom[[.]]; and~~

~~an unscrambler to receive and unscramble the corrected output to provide an unscrambled output;~~

~~a desreader to receive and despread the unscrambled output to provide a despread output; and~~

~~a combiner to combine the despread output with outputs from others of the plurality of rake fingers.~~

12. (Currently Amended) The rake receiver of claim 11, each of the interference estimators, includes further comprises:

~~a plurality of correlators, each correlator adapted to generate an interference estimate for all j-1 paths in the received data signal, where j is not equal to the path of the finger in which the correlator is located[[.]]; and~~

~~an adder to add the output of the plurality of correlators, and to provide the output as the determined path interference for the interference estimator.~~

13. (Currently Amended) The rake receiver of claim 11, further comprising: including a conjugate device to evaluate the conjugate of a scrambling code for the data signal, and

wherein the unscramble uses the evaluated conjugate to unscramble the corrected output.

14. (Currently Amended) The rake receiver of claim 11, wherein each interference estimator includes a plurality of correlators, the number of correlators corresponding to the number of paths for the signal, the combined output of the correlators for a particular interference estimator providing the determined path interference for the particular interference estimator, at least one of the correlators including comprising:

a channel multiplier to multiply channel coefficients by a value of a channel symbol for the received data signal[[.]]; and

scrambling multipliers $M(-N)$ and $M(+N)$ to multiply an output from the multiplier with a scrambling code of a parasitic link delayed in accordance with a delay of the link[[.]]; and

operators $\rho(-N)$ to $\rho(+N)$ to operate on the output of the scrambling multipliers, where N corresponds to a number of interference coefficients ρ , each coefficient being generated by a cross-correlation of transmitting and receiving filters used for respectively transmitting and receiving the data signal[[.]]; and

an adder to sum the output of the scrambling multipliers as applied to the operators to provide the output of the correlator.